

Reflection on internationalization of Chinese surgery journals

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Chinese surgery journals are of small international impact which does not measure up to the state of development of surgery in China and they can not adequately publish Chinese researches to the world. To improve the visibility of Chinese surgery journals, this article suggests developing more English surgery journals, extending a co-opera-

tion with famous publishers, employing overseas experts as editorial committee and making more use of the Internet.

Key words: *Surgery; Journal impact factor; Journal article*

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Surgery journals are the main means of disseminating surgical research findings. It covers resources on general surgical topics including the different types of surgery (cardiovascular, neurosurgery, orthopedic, pediatric, or vascular); allied disciplines of surgery (surgical oncology, pathology, or radiology); and surgical techniques (arthroscopy, microscopy, or endoscopy).¹ Chinese surgery journals could reflect the level of its scientific and technical research. Nowadays, since the reform and opening up of the economy, the progress of science and technology has been greatly promoted and China surgeons have gained achievements attracting worldwide attention. Therefore, Chinese surgery journals are expected to plan their future development to access to international regime.

Current status of Chinese surgery journals

According to the Chinese Journal Citation Reports (CJCR) 2008 by the Institute of Scientific & Technical Information of China,² the total number of Chinese surgery journals is 62, which include 2 English language journals and 60 Chinese language ones. Usually, the

impact factor is a valuable tool for journal evaluation. We obtained from CJCR that in 2007, the average impact factor of Chinese surgery journals was 0.71, and 19.4% of the journals had an impact factor greater than 1.00. Only 1.3% of the papers were from foreign countries and 38.7% of the journals had published no papers from abroad at all. Of the journals, two English language journals published 18.1% and 7.1% of their papers from abroad. This shows that English language journals attract more international articles than Chinese language ones.

The quality and international impact of scientific and technical journals are also evaluated by whether or not they are indexed or abstracted by international search systems such as Science Citation Index (SCI) or Science Citation Index Expanded (SCI-E), Index Medicus (IM), Chemical Abstract (CA), Russia Abstract Journal (AJ), Biological Abstracts (BA), Index of Copernicus (IC), etc. Among them, The SCI system is widely acknowledged. If a journal is included in SCI, it is recognized as one of higher quality and greater international impact. From the Journal Citation Report (JCR) 2008 of the American Institute for Scientific Information (ISI),³ in 2007, of the journals included in SCI-E surgery category, the share of the USA was largest at approximately 54.0%; those of the UK and the Germany were second and third, at approximately 13.7% and 11.5%, respectively; that of Switzerland was fourth (3.6%). There is no China surgery journal included in it. It is not only much less than that of English speaking countries such as USA and UK, but also much less than that of non-English speaking countries such as Switzerland, France, Netherlands, Germany, and Japan. There is

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obviously therefore a big difference between China and the countries mentioned above in the international impact of their surgery journals.

Table 1 shows the impact factor, the ratio of overseas papers and indexed or abstracted situation of the nine Chinese main surgery journals in 2007. Because the impact factor decides on the key journals in a field, we selected top nine impact factor Chinese surgery journals for the further analysis. It can be seen that although these nine have been leading journals in the field of surgery in China, there is no one included in SCI-E, only three journals are covered by IM, five and four were covered by CA and AJ, respectively. The ratios of overseas papers are between 0.3%-5.7%. These facts distinctly indicate that China publishes a lot of surgery journals but they have very low international impact.

Comparison between Chinese and foreign main surgery journals

The impact factor for Chinese surgery journals is generally low. In 2007, the highest impact factor of Chinese surgery journals is only 2.104,² however, that of US and UK in the same subject is 7.446 and 4.304.³ Chinese Journal of Surgery is published semimonthly by the Chinese Medical Association, and is the oldest and most widely distributed surgery periodical in China. The American Journal of Surgery and the British Journal of Surgery are US and UK well known and globally read surgery journals. We try to have a comparative

analysis of CJS, AJS and BJS. Then, main differences could be concluded.

Firstly, on the basis of CJCR and JCR, figures of articles, total cites, impact factor, and immediacy index were obtained in Table 2. From Table 2, it can be seen that CJS published more articles than AJS and BJS in 2007, but its total citation is much lower than the equivalent overseas journals. In addition, The CJS published more frequently but still had lower data of immediacy index. It indicates that articles in AJS and BJS are cited more quickly, and AJS and BJS are publishing in emerging areas of surgery.

Secondly, most editorial board members of CJS are Chinese (Table 2).⁴ In contrast, in journals from USA and UK there is generally a much greater foreign membership of editorial boards. China's journals are very different in this respect compared with those countries. We can know from the journal's website that AJS has 18.2%⁵ foreign specialists and BJS has 37.0%⁶ in editorial boards. On the other hand, the number of papers from overseas published in Chinese journals is very small (Table 1). However, for some countries such as the USA, Germany, the UK, Denmark, the Netherlands, Switzerland, Norway, Austria, Italy and Australia, generally more than 70% of the papers published in their journals come from other countries.⁷ By this criterion, Chinese surgery journals are not international journals and efforts to attract overseas papers should be enhanced.

Table 1. Impact factor, ratio of overseas papers and indexed situation of Chinese main surgery journals in 2007

Journals	ISSN	Issues/year	IF	Ratio of overseas papers	SCI-E	IM	CA	AJ
Chinese journal of orthopedics	0253-2352	12	2.104	0.057	×	×	√	×
Chinese journal of practical surgery	1005-2208	12	1.694	0.003	×	×	×	√
Chinese journal of urology	1000-6702	12	1.605	0.022	×	×	√	×
Chinese journal of microsurgery	1001-2036	6	1.375	0	×	×	×	×
Chinese journal of reparative and reconstructive surgery	1002-1892	12	1.345	0.021	×	√	√	√
Chinese journal of aesthetic and plastic surgery	1673-7040	6	1.224	0	×	×	√	√
Chinese journal of trauma	1001-8050	12	1.212	0.010	×	×	√	√
Chinese journal of gastrointestinal surgery	1671-0274	6	1.207	0.006	×	√	×	×
Chinese journal of surgery	0529-5815	24	1.125	0.018	×	√	×	×

Table 2. Articles, total cites, impact factor, immediacy index and ratio of overseas editorial board members of CJS, AJS and BJS in 2007

Journals	ISSN	Issues/year	Articles	TC	IF	Immediacy index	Ratio of overseas editorial board members
CJS	0529-5815	24	567	6592	1.125	0.138	0.009
AJS	0002-9610	12	342	13306	2.337	0.263	0.182
BJS	0007-1323	12	207	17699	4.304	0.971	0.370

Thirdly, the Internet has changed the way that science is communicated and hence also the role of journals. Through the search engine, we could find that two foreign journals have their own website. There is plenty of information such as instructions for authors, all journal issues, editorial team, editorial board, editorial office, etc for authors easy to access; whereas the CJS does not have. Apparently, AJS and BJS could attract more authors and readers around the world.

The problems summarized

Firstly, Chinese surgery journals are of small international impact. The impact factor is an important criterion by which surgeons choose journals. A lot of Chinese authors prefer to submit their papers to English language journals, and this situation leads to many good quality papers from China being published in foreign journals. Secondly, China is shortage of English language surgery journals. English has steadily replaced other languages in research literature and has become the international language of scholarly publication. The national model, especially in respect of the use of the national language, is proved to be a restrictive factor in international visibility. The number of papers indexed that are written in English is larger than that in Chinese, the number of the papers indexed published in foreign journals is more than in domestic journals, and that trend is increasing, and as time goes on, will influence the development of China's journals.⁸ Thirdly, office automation facilities of Chinese journals do not keep up with the development of science and technology and are often not capable of supporting a manuscript management system.

Suggestions for rapidly developing Chinese surgery journals

Facing these problems, taking corresponding measures will be an effective way of increasing the international impact of Chinese surgery research.

Publishing English edition

As English is at present the most important language in the international exchange of science and technology, the effectiveness of journals in that language is much greater. A majority of journals included in some international important index systems are published in English. English language journals have more international influence than Chinese language ones obviously. The language transition may produce positive changes in the editing and publishing characteristics of the journals (internationalization of editorial councils and the pool of authors, and more scrupulous categorization of published papers). Some non-English speaking countries, such as Germany, Japan, and France, publish some of their important journals in English, and China should do more in that respect. Meanwhile, its native language journals should have more detailed English abstract and content⁹ to expand market.

International authors, editorial committee, peer reviewers, and readers

Internationalization of a journal includes the internationalization of the authors, editorial committee, peer reviewers, and readers. Employing overseas experts as editorial board members and the quality of editors have improved considerably. Some new emerged Chinese English journals do better in this aspect. For example, the journal of Hepatobiliary & Pancreatic Diseases International organizes their international editorial board with above 50% foreign experts and is able to attract papers from different countries. Only six years after it is founded, the journal produced a journal competitive on the international scene and was included in SCI-E in 2007. Their international readership is reflected in the prestigious international editorial board, supported by a panel of over hundreds of reviewers worldwide.

There are many Chinese surgeons at a high academic level with good English. As they are encouraged to publish their articles in foreign journals, Chinese journals have difficulty in obtaining papers even from the

best Chinese surgeons. High quality papers guarantee high quality journals. We suggest that the Chinese government should assist Chinese surgery journals by formulating policies more favorable to them. The current policy of encouraging the publication of papers in foreign journals should be changed.

Group operation

Most China journals are run by small independent editorial departments. With competition both within the country and from foreign countries, grouping the current independent journals under a unified management is very necessary. In addition, some overseas publishers are able to develop their businesses in China and to supply the effective management skills that we lack. Elsevier, a largest scientific journal publisher, at present, is extending a co-operation program with Chinese journals and is thus actively collaborating with some Chinese editorial departments and publication corporations. These will surely open opportunities for Chinese surgery journals to cooperate with them and thereby to gain access to overseas markets.

There are many successful examples of collaborations with other foreign publishers. The Journal of Zhejiang University Science has been published since 2000. In 2006, it began to cooperate with the Springer. The big company provided the basis for JZUS's publication in the world. By establishing contacts and co-operation with the high profile counterparts, JZUS citation frequency increased rapidly and achieved the transition from non-SCI to SCI-E journals in 2007.¹⁰

Editing and publishing through the Internet

In order to improve journal visibility in the mainstream of surgery activity through the use of appropriate publication and communication channels, a useful strategy for a journal is to set up its own website. The contribution, review, editing, and management of papers in China should make more use of computers and the internet. That will not only enhance efficiency and shorten the time to publication, decrease the cost of journals but also more overseas authors would be attracted to submit their papers to Chinese journals for publication. This increased internationalization of manuscript sources would increase the quality and impact of the Chinese surgery journals.

Summary

To accelerate the process of internationalization of Chinese surgery journals is something required not only to assist the progress of science and technology but also to fill the needs of many surgeons in China. Great efforts should be made to develop English-language journals of international standard. A lot of experts will be attracted to serve in China and the academic level of Chinese surgeons is continually increasing. These conditions are now in place and China should seize the opportunity to take forward reform and innovation in the surgery journals area.

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